



# National Patient Safety Strategic Plan in Bangladesh

Listen, Learn, Develop and Act

Quality Improvement Secretariat  
Ministry of Health & Family Welfare  
[www.qis.gov.bd](http://www.qis.gov.bd)



**“We cannot change the human condition, but we can change the conditions under which humans work”**

—James Reason, 2000

**Developed by**

Quality Improvement Secretariat (QIS), Health Economics Unit, Health Services Division, Ministry of Health and Family Welfare, Government of Bangladesh, in collaboration with USAID's MaMoni Health Systems Strengthening Project

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## Message

Patient safety lies at the heart of healthcare all over the world. To ensure patient safety, it needs to build and maintain a genuine safety culture based on openness, honesty, fairness and accountability. Such a culture supports opportunities for learning. Improvement requires flexibility and resilience so that healthcare workers can deal with unexpected situations, learn from errors and manage priorities in a timely manner.

The Ministry of Health and Family Welfare is working intensively on quality of care and the Quality Improvement Secretariat (QIS) has been established in 2015 to provide guidance to improve quality in the health system. Bangladesh is one of the few countries in Asia that has achieved some MDG indicators and similarly targets to achieve the SDGs by 2030. To achieve the targets, patient safety in health care is important.

Very little information is available about the harms that occur to patients in developing countries. Understanding the magnitude of the problem and the underlying factors represents the first step towards improvement. Considering that, the MOH&FW has finalized the National Strategic Plan for Patient Safety in Bangladesh. The aim is to prevent all avoidable deaths and harm to patients.

I am delighted that the Strategic Plan for Patient Safety has been developed under the leadership of Quality Improvement Secretariat with the financial and technical assistance of USAID provided through its MaMoni HSS Project. I believe this will be an effective and useful document for the planners, health administrators and health managers including health care providers at different levels of health service system.

I appreciate the QIS of Health Economics Unit (HEU) for leading the work of developing the guideline. I also thank HEU and others concerned who were involved in the development process. I hope that by acquiring knowledge from this document, health professionals will play their respective roles in improving patient safety in Bangladesh.

Joy Bangla, Joy Bangabandhu

Long live Bangladesh.

**Mohammed Nasim, MP**

Minister

Ministry of Health and Family Welfare

Govt. of the People's Republic of Bangladesh

## Message

The government of Bangladesh is committed to ensuring quality healthcare services to all citizens in the country. Improvement of quality of services is one of the priority areas in current health sector program. The Ministry of Health and Family Welfare has been leading the development and implementation of various programs and activities for quality improvement at the facilities. As a result of concerted efforts, the country has achieved impressive gains in the areas of maternal and child health and other areas.

Patient safety had received considerable public, professional, political, and scientific attention over the past years. Adverse events and injuries caused during health care services are associated with unnecessary morbidity, prolonged length of hospital stay or even death. Ensuring patient safety is therefore a major challenge both in developing and developed countries.

Recognizing the needs of patient safety for improvement of quality of health care service, the Quality Improvement Secretariat (QIS) of Health Economic Unit (HEU) has taken initiative and developed the national strategy for patient safety in collaboration with DGHS, DGFP, professional bodies and development partners, especially USAID and MaMoni HSS Project.

I would like to appreciate the QIS for undertaking the initiative. I hope that the national strategic plan for patient safety will be the utilized effectively by the health planners, decision makers, managers and health care providers at different levels to minimize the errors and harms associated with health care services in Bangladesh.



**Md. Serajul Huq Khan**

Secretary

Health Services Division

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## Message

Bangladesh is committed to achieve the sustainable developmental goals by 2030. One of the key components of achieving the target is. to improve quality of health care services and ensure universal health coverage. Patient safety is one the areas of quality of care where there is every options to minimize the errors and harm to the patient. Studies from developed countries show that about one in ten patients are harmed while receiving hospital care.

The consequences are devastated lives and unnecessary cost of billions of dollars for prolonged hospitalization, loss of income, disability and litigation. While there is limited information available about the actual harm occurring to patients in developing countries, the evidences suggest that there may be higher risk of suffering from harm in low and low middle income countries. Bangladesh did not have any guideline for patient safety. Considering the context, the MoH&FW with the support from HEU, DGHS and DGFP took the initiative to develop the strategic plan for the patient safety in Bangladesh. I, as the Director General of Health Services, am delighted to be part of it. This strategic plan for the patient safety contains several domains and is the framework for patient safety for improving the quality of services. I believe this document will be helpful to the providers and managers of all tires of health facilities.

I would like to thank the HEU, DGHS, DGFP and other stakeholders e.g. WHO, IHI, and especially USAID and MaMoni HSS Project, for supporting development of the strategic plan. I am optimistic that the document would help the country to achieve the SDG goals by 2030.



**Prof Dr. Abul Kalam Azad**

Director General

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## Message

The Quality Improvement Secretariat (QIS) of Ministry of Health and Welfare is putting continuous effort to improve the quality of healthcare services in Bangladesh to fulfil the Government's commitment to achieve Universal Health Coverage.

Patient safety is the prevention of errors and adverse effects of patients associated with health care. The discipline of patient safety is the coordinated efforts of health care to prevent harm from occurring to patients. Patient safety has been increasingly recognized as an issue of global importance, much work remains to be done. In Bangladesh, there is no guideline for patient safety, though QIS has developed an implementing infection prevention guidelines and antimicrobial stewardship which are the part of patient safety.

Considering the needs for the country to improve quality of care, Quality Improvement Secretariat (QIS) of Health Economics Unit has taken the initiative to develop a strategic plan for patient safety on behalf of MOHFW. QIS has involved a wide range of stakeholders like DGHS, DGFP, development partners, health research organizations, professional bodies and specialists, such as Pediatricians, Obstetricians & Gynecologist, Surgeons, Anesthesiologists, IHI and public health experts to develop and finalize the strategic plan. A national validation workshop and series of meeting with the stakeholders were held to develop and finalize the document.

This strategic plan will be useful to the planners, policy makers, health manager and health care providers at different levels to understand details about patient safety issue, we hope that this strategic document will be effectively used by the manager and health care providers at all tires of health facilities to ensure patient safety in Bangladesh. HEU expresses its gratitude to USAID and the MaMoni HSS Project for extending their generous technical assistance and support I preparing and printing this important document. Thanks are also due to all those who contributed in finalizing the content and text.



**Dr. Mohd. Shahadt Hossain Mahmud**  
Director General (Additional Secretary)  
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Ministry of Health and Family Welfare

## Message

“First do not harm” – this principle remains central to the provision of high-quality health care. Patient safety can be defined as freedom of patients from avoidable and unnecessary harm or potential harm associated with health care. Patient safety is also a right, securing patients a state of freedom from accidental or preventable injuries in medical care.

Medical errors can occur during various modalities of procedures, diagnosis, treatment and follow-up. Health care today is becoming increasingly complex and may include an array of complex procedures and processes, thereby increasing the probability of error. Protecting such errors require establishing systems that minimize the likelihood of errors while maximizing the likelihood of intercepting them. Although errors are unlikely to be completely eliminated, harm and impact to patients can be minimized.

The Quality Improvement Secretariat (QIS) of Ministry of Health and Family Welfare is mandated to take the key responsibility to establish patient safety environment at the health facilities. Since the country does not have any structured model for patient safety, the QIS has taken the lead to develop the national strategic plan for patient safety. This strategic plan will guide to introduce a wide range of actions in performance improvement, environmental safety and risk management, including infection control, safe use of medicines, equipment safety, blood safety, safe clinical practices and providing a safe environment of care.

This manual is developed with the financial and technical assistance of USAID’s MaMoni Health Systems Strengthening Project. We express our thanks and gratitude to USAID and MaMoni HSS Project for their generous support. We also acknowledge and appreciate the contribution of DGHS, DGFP, WHO, UNICEF, UNFPA as well as other developmental partners, Centre for Injury Prevention and Research, Bangladesh (CIPRB), IHI and different professional groups such as Bangladesh Neonatal Forum (BNF) and professional experts for providing thoughtful inputs in finalizing this document.

We wish the national strategic plan for patient safety in Bangladesh will be the most effective and useful document for the policy makers, planners, health managers and health care providers at all level of facilities for improvement of quality of health care services.



**Dr. Md Aminul Hasan, PhD**

Focal Person

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## Abbreviations

CCU	Coronary Care Unit
DDD	Defined Daily Doses
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
FFP	Fresh Frozen Plasma
HCAI	Health Care–Associated Infections
HCP	Health Care Provider
ICU	Intensive Care Unit
ID	Identification
MOH&FW	Ministry of Health and Family Welfare
NICU	Neonatal Intensive Care Unit
PDCA	Plan, Do, Check, and Act
QI	Quality Improvement
QIS	Quality Improvement Secretariat
QoC	Quality of Care
SCANU	Special Care Newborn Unit
TQM	Total Quality Management
VAP	Ventilator-Associated Pneumonia
WHO	World Health Organization

## Important Terms in Patient Safety<sup>1</sup>

**Adverse drug event:** A medication-related adverse event.

**Adverse event:** An injury related to medical management, in contrast to complications of disease. Medical management includes all aspects of care, including diagnosis and treatment, failure to diagnose or treat, and the systems and equipment used to deliver care. Adverse events may be preventable or unpreventable. Adverse events in health care can occur due to a number of factors. These include:

- Failures due to unsafe clinical practices such as
  - Unsafe surgery
  - Poor hand hygiene practices
  - Unsafe use of injections, blood products, medication, and medical devices
- Unsafe processes such as communication failures and ineffective teamwork
- Not applying the principles of human factor ergonomics in pursuing patient safety
- Poor patient handovers
- Misdiagnosis
- Poor test follow-up

**Error:** The failure of a planned action to be completed as intended (i.e. error of execution) or the use of a wrong plan to achieve an aim (i.e. error of planning). Errors may manifest by doing the wrong thing (commission) or by failing to do the right thing (omission), at either planning or execution phase, and usually reflect deficiencies in the systems of care. An error is a failure to carry out a planned action as intended or an application of an incorrect plan. Errors are, by definition, unintentional, whereas violations are usually intentional, though rarely malicious, and may become routine and automatic in certain contexts.

**Event:** Any deviation from usual medical care that causes an injury to the patient or poses a risk of harm. Includes errors, preventable adverse events, and hazards (see also “incident”).

**Hazard:** Any threat to safety, e.g. unsafe practices, conduct, or equipment; incorrect labels and names.

**Incident (or adverse incident):** Any deviation from usual medical care that causes an injury to the patient or poses a risk of harm. This includes errors, preventable adverse events, and hazards.

**Latent error (or latent failure):** A defect in design, organization, training, or maintenance in a system that leads to operator errors and whose effects are typically delayed.

**Near miss (or close call or potential adverse event):** Serious error or mishap that has the potential to cause an adverse event but fails to do so because of chance or because it is intercepted.

**Preventable adverse event:** An adverse event caused by an error or other type of systems or equipment failure.

**Safety:** Freedom from accidental injuries.

**System:** A set of interdependent elements (people, processes, equipment) that interact to achieve a common aim.



## Chapter 1: Introduction

Bangladesh has a network of primary, secondary, and tertiary-level public facilities. Along with growth in the public sector, there also has been growth in the private health care system. Today more than 5,000 facilities belong to the private sector.<sup>2</sup> However, quality of care (QoC) still remains a challenge in Bangladesh.

Bangladesh has shown progress in enabling the QoC culture at the facility level. With the total quality management (TQM) approach, different levels of facilities are applying quality improvement (QI) cycles at their workplace. While many have shown progress at improving readiness and individual service quality, there still remains a gap in implementing and monitoring the patient safety culture.

The practice of patient safety is an essential part of any health service; it ensures prevention of any avoidable errors or effects that can potentially harm the patients. According to the World Health Organization (WHO), “patient safety is the prevention of errors and adverse effects to patients associated with health care.”<sup>3</sup>

Patient safety, which is the prevention of errors associated with health care, lies at the heart of health care. Preventable harm to patients resulting from their health care is unacceptable at any time. Patient safety is first and foremost a clinical problem and it is fundamental to the provision of high-quality services. Mismanaged health care that kills or harms patients has increasingly drawn public and media attention as well as the attention of those involved in health care. Keeping patients safe can also be viewed as a public health problem and a human rights issue affecting all types of health care systems, whether in developed or developing countries.

Patient safety is a fundamental principle of health care. Every point in the process of care-giving, inherently contains a certain degree of unsafety. Clear policies, organizational leadership capacity, data to drive safety improvements, skilled health care professionals, and effective involvement of patients in their care, are all needed to ensure sustainable and significant improvements in the safety of health care. As Bangladesh progresses toward achieving universal health coverage by 2030, it is essential to set up the patient safety culture in the health service delivery system.

Improving patient safety thus requires a system-wide effort involving a wide range of actions in performance improvement, environmental safety, and risk management, including infection control, safe use of medicines, equipment safety, safe clinical practice, and providing a safe environment of care. Considering the context, Bangladesh’s Ministry of Health and Family Welfare (MOH&FW) has taken timely initiatives to include patient safety in its 4th Health, Population, and Nutrition Sector Programme 2017-2022. MOH&FW has established the Quality Improvement Secretariat (QIS) in 2015. at the Health Economics Unit. The QIS in coordination with the DGHS and DGFP, has developed a national strategy to improve the quality of clinical care across the country.

QI Committees at the national, district, and upazila (subdistrict) levels are responsible for implementing QI approaches at different levels of health services and monitoring the QI in the facilities. MOH&FW has taken an initiative to develop a Patient Safety Strategic Plan for Bangladesh to guide the country to ensure safety of patients in health care using the QI approach. This will help to continuously improve the overall health status for those who work in health care and those who receive health care. Regional strategy for patient safety from 2015–2025 has been developed by WHO<sup>4</sup> however, there is no strategy developed for patient safety in Bangladesh. This document will explain different domains of patient safety and will suggest the strategic ways of setting up the patient safety culture at facility level in Bangladesh.

## 1.1 Vision

A safe and effective Bangladesh health system

## 1.2 Mission

Effective healthcare leadership will improve patient safety by creating awareness and motivating stakeholders to take positive action.

## 1.3 Overall Objective

Improving and enhancing patient safety at all levels of health care in both public and private sectors, from primary to tertiary level, and all modalities of health care both preventive and curative including prevention, diagnosis, treatment, and follow-up by 2022.

### 1.3.1 Specific Objectives

- To improve the structural systems to place patient safety at the center of health care from primary to tertiary level
- To assess the nature and scale of harm to patients and establish a system of reporting and learning at the different levels
- To take action on reported incidents and to prevent harm to patients in the future
- To ensure a competent and capable workforce that is aware and sensitive to patient safety
- To ensure practice of patient safety covering all the domains in health care services
- To develop leadership skills around patient safety both at facility and national levels
- To facilitate sustainable improvements in patient safety and risk management to prevent patient harm
- To ensure empowerment of the patient to participate in the decision-making process
- To develop a culture of safety at the facility level that supports and enables the above objectives



## Chapter 2: What Is Patient Safety?

Patient safety is defined by the WHO as “the prevention of errors and adverse effects to patients associated with health care.”<sup>5</sup>

In another definition, that of the Institute of Medicine, patient safety is defined as the prevention of harm to patients. Emphasis is placed on the system of care delivery that prevents errors; learns from the errors that do occur; and is built on a culture of safety that involves health care professionals, organizations, and patients.<sup>5</sup>

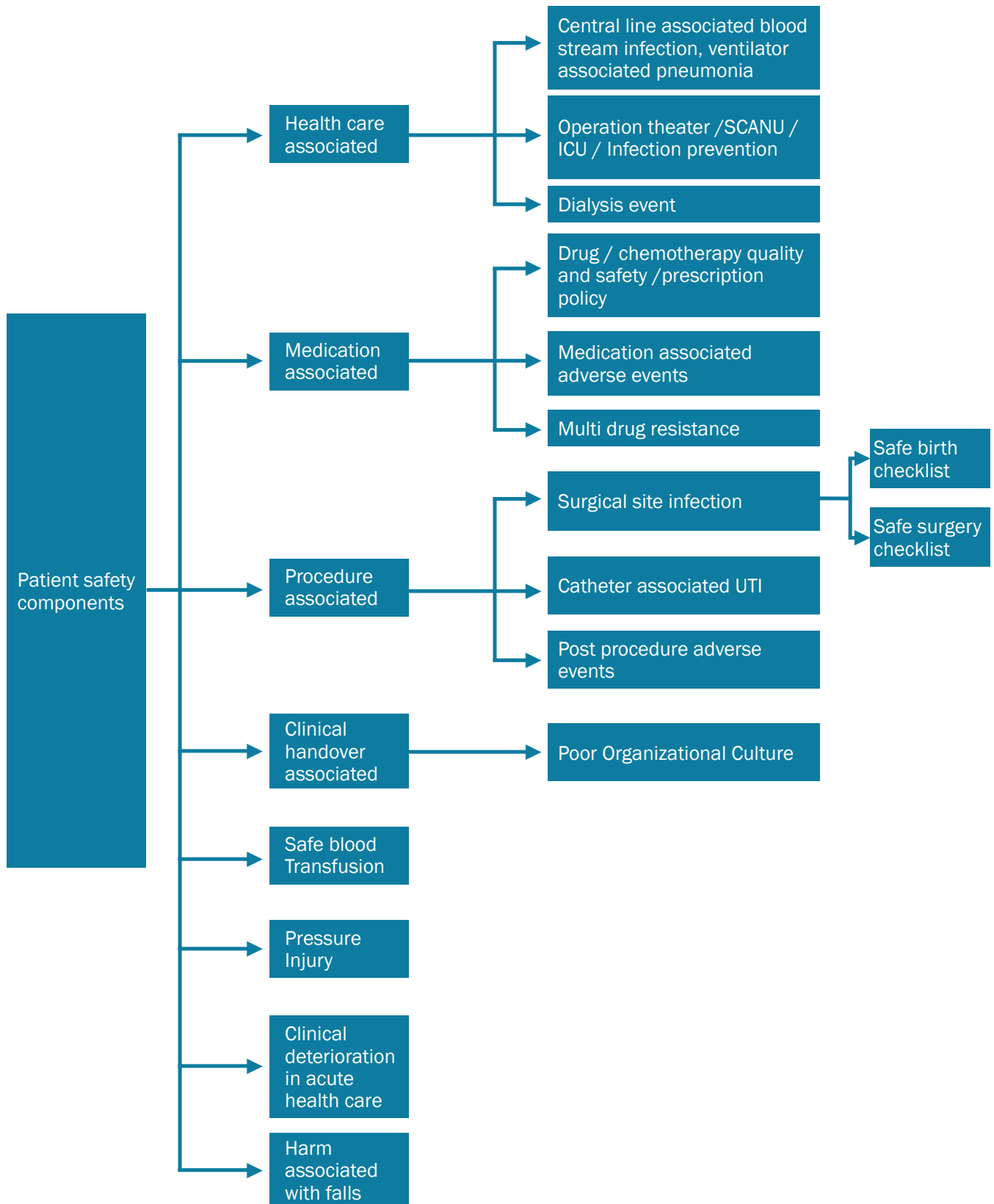
The WHO also defines patient safety as “the absence of preventable harm to a patient and reduction of risk of unnecessary harm associated with health care to an acceptable minimum. The discipline of patient safety is the coordinated efforts to prevent harm, caused by the process of health care itself, from occurring to patients. Patient safety has been increasingly recognized as an issue of global importance.”<sup>6</sup>

### 2.1 Domains (Components) of Patient Safety

The main focus of this strategy is to establish the safest, highest-quality health care system. In support of patient safety in Bangladesh, there should be some focus points. The eight selected domains cover all the probable aspects of health care to ensure the proper safety of patients and HCPs. They provide a sense of direction and an outline for achieving the goal of ensuring patient safety at all levels. The domains are:

1. Health Care–Associated Infections (HCAI)
2. Medication Safety
3. Patient Identification (ID) and Procedure Matching
4. Clinical Handover
5. Blood and Blood Products
6. Preventing and Managing Pressure Injuries
7. Recognizing and Responding to Clinical Deterioration in Acute Health Care
8. Preventing Fall-Associated Harm

**Figure 1:** Domains (components) of patient safety<sup>7</sup>



## 2.2 Patient Safety Implementation Framework

Patient safety in the facilities will follow a continuous cycle guided by the QI model for ensuring safety of patients. The PDCA cycle of QI model<sup>8</sup> will be followed: start with plan, then do, check, and finally act. It will be a stepwise patient-centered approach, looking at the safety and QoC of patients.

In order to plan, risks in the facility will be assessed by the assigned team or groups through continuous surveillance system. Documentation will be done of errors identified and gaps in patient safety as per guideline and checklist. Then the interventions will take place in eight domains of patient safety in the facility. Improvement of patient safety will be checked and acted through QI Committees. Feedback will be provided and followed-up.

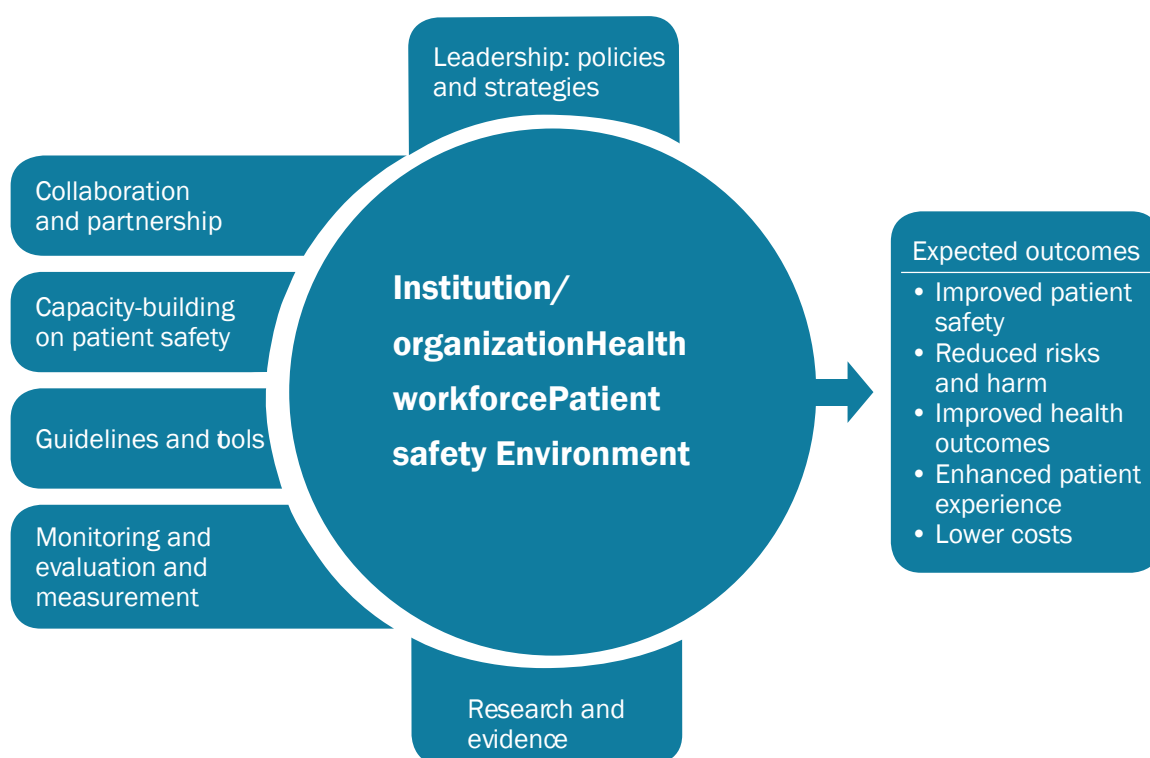
**Figure 2:** Implementation framework



## Chapter 3: Approach to Patient Safety

Patient safety improvement will only take place with a combination of committed leadership and management supporting a program of improvement and frontline practitioners who understand how to implement the necessary interventions for safety. Patient safety results from an environment where institutional organization ensures necessary policies, strategies, guidelines, and tools for execution of QoC at every point of service and considers measures to avoid adverse and unexpected events in patient safety. Continued capacity-building on safety culture, clinical elements would result in a competent workforce, which will be useful for implementation of a patient safety program. Program collaboration and partnership-built appropriate evidence base and research further ensure patient safety to achieve the expected outcomes.<sup>5</sup>

**Figure 3:** Patient safety approach



### 3.1 Approaches at the Facility Level

#### 1. Conduct Patient Safety Leadership WalkRounds<sup>9</sup>

Patient Safety Leadership WalkRound is a system encouraged by senior leaders, weekly, for building a culture of safety. WalkRounds are conducted in patient care departments (such as the emergency department, operating rooms, radiology), the pharmacy, laboratories, etc.

#### 2. Create a reporting system

Patient safety reporting systems could provide a means to efficiently identify and hopefully mitigate hazards. Reporting systems may evaluate why patients are harmed by medical care. In a culture of safety, staff members are aware of safety issues and are free to report conditions that could lead to near misses or actual adverse events.

#### 3. Designate a focal person for patient safety

To ensure the patient safety culture, a focal person for patient safety is needed who

will promote action through training of staff and implementation of proven methods. Ideally, safety would be the patient safety officer's primary occupation, not an extra task in addition to other jobs.

#### **4. Re-enact real adverse events from the facility**

With staff members as actors, a simple skit or videotape of a reenacted adverse event or near miss can raise safety awareness and teach both staff and management valuable safety lessons. This can be a real story or patched-together real or plausible events to create a fictional composite. A commentary from the patient safety focal person, senior leader, or the people involved in the real event can be a powerful ending that reinforces the management's nonpunitive safety culture.

#### **5. Involve patients in safety initiatives**

Sometimes patients and their family can be the best sources of information in safety initiatives. Not only do patients and families feel valued when they are involved in safety checks and multidisciplinary rounds, but their questions and comments often indicate possible errors. Staff members should always take patients and their families very seriously.

#### **6. Relay safety reports at shift changes**

Department or floor in charge of hospital should ensure the safety report of patient from the duty doctor/nurse during shift changes. Identifying these higher-risk situations and bringing them to the attention of all staff members at the start of each shift decreases the likelihood of errors and adverse events.

#### **7. Appoint a safety champion for every unit**

According to Institute of Healthcare Improvement, having a designated safety champion in every department and patient care unit demonstrates the organization's commitment to safety and may make other staff members feel more comfortable about sharing information and asking questions. Champions must have proper training, resources, and authority.

#### **8. Simulate possible adverse events**

Many other industries, particularly aviation, use simulation to teach people to recognize problems and understand the effects of their responses in a safe environment. The technique is particularly helpful in preparing people for error-prone, high-risk, or unusual situations. Simulation has many applications in health care, and an organization's investment of staff time in simulation or in a patient safety laboratory demonstrates the leadership's commitment to a safety culture. Any organization can benefit from simulations, in whatever settings are available, even if they do not have dedicated patient safety labs to use as simulation theaters.

#### **9. Conduct safety briefings**

Safety briefings in patient care units are tools to increase safety awareness among frontline staff and foster a culture of safety. Based on concepts in aviation and other industries, briefings make safety-consciousness part of the routine, 24 hours a day and 7 days a week. Safety briefings should be designed so that staff members can conduct them without participation or guidance from management.

#### **10. Create an adverse event response team**

After any adverse event, members of the response team take prompt action: they keep the atmosphere in the unit calm, they do whatever is possible to mitigate harm to the patient and prevent further harm, they curtail any undue punitive action, they review what happened, and they support the family, staff, and physicians. A trained response team for adverse events demonstrates commitment to a culture of support rather than a culture of blame.

### 3.2 Approaches at the National Level

The following stepwise approach is crucially important in developing and implementing a patient safety program:

#### 1. Designate a unit/directorate to monitor patient safety activities<sup>5</sup>

The QIS of MOH&FW is leading the QI of health care delivery at facilities in Bangladesh. The QIS will coordinate with different implementers of MOH&FW, DGHS, TQM to monitor patient safety activities through QI Committees at different levels.

#### 2. Collect information on patient safety incidents regularly

Incident reporting should ideally communicate all information relevant to patient safety. Local incident reporting systems in hospitals typically use an incident form that comprises basic clinical details and a brief description of the incident; there may be a list of designated incidents that should always be reported. Such systems are ideally used as part of an overall safety and QI strategy, but in practice they may be dominated by managing claims and complaints.

DHIS 2 is a web-based platform that collects the country's routine health data online. The facilities should use the platform to report and notify events of patient safety following the indicators in a routine basis. Facilities will record and document the events and patient safety status daily and report back to the upper tier (managers or focal person assigned for patient safety). Moreover, key indicators data will be uploaded in the central DHIS 2 of DGHS periodically. Incident data will also be reported to the QI Committees.

#### 3. Capacity-building of the frontlines

A structured training module will be developed in consultation with technical experts, professionals, and relevant stakeholders and follow the country's national strategic plan. Orientation will be given to the HCPs at all levels working in the facilities. Refreshers also will be given periodically for retention of training knowledge and skills. Moreover, mentoring in a small group including peer education will be continued for better understanding of patient safety as a routine basis on different domains of patient safety.

#### 4. Visits

An operational patient safety team will be formed within each hospital to run the patient safety program. The functions of the team are to oversee and guide the implementation, activities, and management of the program. The team will regularly visit the hospitals and follow a structured checklist to monitor the status of different domains.

The team will carry out incident reporting (also referred to as adverse event reporting), which involves health care staff actively recording information on events or circumstances that have led to harm to patients or could have potentially harmed patients. The team will prepare reports, share them with the QI Committees, and suggest subsequent actions and recommendations as needed. Recommendations may include changes in processes and system redesign.

### 3.3 Monitoring

Progress with implementation of the patient safety strategy will be reported monthly to the QI Committee by level. Progress with continuous QI will be monitored quarterly against locally set indicators.

Outcomes will be reported in a Patient Safety and Quality Report to the QIS, which will coordinate functions of the QI Committees at division, district, and upazila levels for monitoring purposes. The Group will have responsibility for ensuring that the individual streams of work supporting the strategy implementation have adequate and appropriate support to achieve success and that they are progressing in accordance with the strategic plans.

### **3.3.1 Indicators that will demonstrate improved safety culture:**

- Percentage of staff feeling satisfied with the quality of work and patient care they are able to deliver
- Percentage of staff agreeing that their role makes a difference to patients
- Percentage of staff witnessing potentially harmful errors, near misses, or incidents that could have hurt patients in the last month
- Percentage of staff reporting errors, near misses, or incidents witnessed in last month
- Percentage of staff who feel all those involved in an error, near miss, or incident are treated fairly
- Percentage of staff able to contribute to improvements at work
- Percentage of staff who recommend the facility as a place to work or receive treatment
- Percentage of staff who report that safety is a priority
- Percentage of staff that rate the health care organization as safe

### **3.3.2 Indicators by Domains**

#### **3.3.2.1 Health Care–Associated Infections (HCAI)**

- Wound infection rate
- Wound dehiscence rate
- Ventilator-associated pneumonia (VAP)
- Postoperative sepsis rate
- Complications of anesthesia
- Retained surgical item or unretrieved device fragment count
- Postoperative hemorrhage or hematoma
- Central venous catheter-related blood stream infection rate
- Accidental puncture or laceration rate

#### **3.3.2.2 Medication Safety**

- Organization has a policy and process for reporting and analyzing medication incidents (yes/no)
- Number of medication incidents
- Proportion of surgical patients (coronary artery bypass graft, cardiac surgery, hip arthroplasty, knee arthroplasty, hysterectomy, and vascular surgery) who receive prophylactic antibiotics
- Frequency of medication incidents resulting in harm or death, categorized according to the type of incident (e.g. incorrect dose, incorrect medication, incorrect patient)
- Proportion of medication incidents that result in harm or death per days of patient care

### 3.3.2.3 Patient Identification (ID) and Procedure Matching

- Organization has approved patient identifiers on registration or admission and when providing care, therapy, services
- Annual assessment of risk for:
  - Mismatching for reports
  - Incidents of incorrect patient ID
  - Procedural mismatching events

### 3.3.2.4 Clinical Handover

- Transition of care—patients' understanding of the purpose of their medication
- Institution has a functioning safe handover policy

### 3.3.2.5 Blood and Blood Products

- Transfusion reaction count
- Wrong blood type event count

### 3.3.2.6 Preventing and Managing Pressure Injuries

- Pressure ulcer rate (decubitus ulcer)
- Birth trauma—injury to neonate
- Obstetric injuries count due to vaginal delivery with instrument (forceps/vacuum)

### 3.3.2.7 Recognizing and Responding to Clinical Deterioration in Acute Health

- Number of unstable diagnosed cases (such as shock for postpartum hemorrhage, unconscious eclampsia, myocardial infarction, child with diarrhea) admitted and died immediately
- Failure to rescue (number of cases undiagnosed died in facility)

### 3.3.2.8 Preventing Fall-Associated Harm

- Number of fractures due to fall
- Number of in-hospital patient falls

## 3.4 Time Frame

The time frame for the functionality of the Patient Safety Strategic Plan has initially been set at 2017–2022. A further development of the strategy is planned on the basis of evaluation and feedback.



## Chapter 4: Domains (Key Components) of Patient Safety

The following sections describe important domains and components with details of relevant activities and means for achieving them, which will remain crucially important for better understanding and implementation of activities for patient safety at all facility levels.

### 4.1 Domain 1: Health Care–Associated Infections (HCAI)

A breach in infection control practices facilitates transmission of infection from patients to HCPs, other patients, and attendants. It is therefore important for all HCPs, patients, their family members, friends, and close contacts to adhere to the infection control guidelines strictly. It is also imperative for health care administrators to ensure implementation of the infection control program in health care facilities.

Quality standard covers organizational factors in preventing and controlling HCAI in secondary care settings. Organizational factors include management arrangements, policies, procedures, monitoring, evaluation, audit, and accountability. Secondary care settings include hospital buildings and grounds, inpatient, day care, and outpatient facilities and services; elective and emergency care facilities; and hospital maternity units and services.<sup>11, 12</sup>

#### 4.1.1 Main Outcomes

- Identify local determinants of the HCAI burden
- Improve reporting and surveillance systems at the national level
- Ensure core components for infection control are in place at the national and health care setting levels
- Implement standard precautions, particularly best hand hygiene practices at the bedside
- Adopt proven health care practices by those delivering care that have been proven to reduce the opportunity for infections (e.g. VAP bundle, central line insertion bundle)
- Improve education and accountability of staff and attendants.<sup>4</sup>

#### 4.1.2 Key Component 1: Good Governance for Health Care–Associated Infection Control and Prevention

**Definition:** Good governance is an indeterminate term used to describe how public institutions conduct public affairs and manage public resources. Governance is the process of decision-making and the process by which decisions are implemented or not implemented. Effective governance and management systems for HCAI include use of a risk management approach when implementing policies, procedures, and/or protocols.

**Outcome:** Develop standards and monitor the quality of training and learning within institutions for improving quality of infection control and prevention.

**Responsibility:** Health care facilities have a legal responsibility to provide a safe work environment, safe systems of work, and a safe environment for patients and visitors. Clinical governance refers to the system by which managers and clinicians in each health care facility share responsibility and are held accountable for patient care. This involves minimizing risks to patients and staff and continuously monitoring and improving the quality of clinical care.

Activities	Means of achieving
Developing, implementing, monitoring, and reporting governance system for infection prevention and control	<ul style="list-style-type: none"> <li>• All staff members need to understand the impact of infection and infection control practices to enable them to apply their personal responsibilities toward patients, other staff members, visitors, and themselves</li> <li>• Follow the standard infection control precautions</li> <li>• Practicing the transmission-based precautions including contact precautions, airborne precautions, and droplet precautions</li> <li>• Screening of patients</li> </ul> <p><b>Isolation guidance:</b> Isolation of potentially contagious patients within the intensive care unit (ICU) should be attempted to reduce the chances of cross-infection. Isolation is recommended for control of airborne spread of pathogens.</p> <ul style="list-style-type: none"> <li>• Infection may also be reduced by changing behavior of staff</li> <li>• Prevention and management of occupational exposure to blood and body fluids</li> <li>• Prescribing antimicrobial to prevent secondary infections</li> <li>• Training and education on infection prevention and control</li> <li>• Strengthening the support in microbiology laboratory for detection of specific infection</li> <li>• Infrastructure of Monitoring and Reporting Committee</li> </ul> <p><b>Surveillance system:</b> Mandatory national and local surveillance of HCAI provides information that can be used to assess the infection risk of people in hospital and inform the response.<sup>5</sup></p>

### 4.1.3 Key Component 2: Health Care–Associated Infection Prevention and Control Strategies

**Definition:** Strategy involves setting goals, determining actions to achieve the goals, and mobilizing resources to execute the actions. HCAI are infections people get while they are receiving health care for another condition and are a significant cause of illness and death. The strategy describes how the goals, prevention, and control of HCAI will be achieved by the means.

**Outcome:** Convince medical doctors, physical therapists, and other HCPs to implement active preventive measures in patient safety programs and reduce the injury, morbidity, and mortality rates.

**Responsibility:** The senior leadership of an organization is generally tasked with determining strategy. Strategy can be planned or can be observed as a pattern of activity as the organization adapts to its environment or competes. Both hospital administrators and HCPs are tasked to demonstrate effectiveness of infection control programs, assure adequate staff training in infection control, evaluate changing priorities based on ongoing risk assessments, ensure adequate numbers of competent infection control practitioners, and perform program evaluations using QI tools as indicated.

Activities	Means of achieving
Involving the patient and attendant in infection prevention and control	<ul style="list-style-type: none"> <li>• <b>Hand hygiene:</b> The simplest approach to prevent spread of infections; can be maintained by following National hand hygiene guideline of Bangladesh.<sup>6</sup></li> <li>• <b>Environmental hygiene:</b> Regular cleaning of hospital rooms by disinfectant chemicals and detergent and fumigation immediately after discharge of contagious patients are the basic rules for maintaining environmental hygiene.<sup>5</sup></li> <li>• <b>Visitor restriction:</b> Visiting time must be restricted. Only two visitors are allowed to visit a patient at one time and children under 12 should not visit, with the exception of the maternity and pediatric units. In certain circumstances the nurse in charge may give special permission for children to visit, for more visitors, or for visiting outside of hours; this should be discussed beforehand. Some rules should be provided for visitors, such as: <ul style="list-style-type: none"> <li>• Do not visit if you are unwell</li> <li>• Do not sit on the patients' beds; use the chairs provided</li> <li>• Do not use the patient toilets; use the public toilets situated on the corridors</li> <li>• Do not share the patients' toiletries, tissues, towels, etc., or hospital equipment with other patients</li> <li>• Do not touch a patient's wounds, dressings, or any devices such as drips or catheters</li> <li>• Do not bring food onto the ward unless previously discussed with the ward staff and agreed upon</li> <li>• Wash your hands when entering and leaving a ward either at one of the handwash sinks or by using the alcohol hand gel</li> <li>• Wash and dry your hands after using the toilet<sup>5</sup></li> </ul> </li> </ul>
Concerning specialist in infection control and epidemiological support <sup>7</sup>	<ul style="list-style-type: none"> <li>• Provide guideline in infection control programs</li> <li>• Provide proper training on infection control to the HCPs, especially to the junior health workers, to control and prevent hospital infection</li> <li>• Epidemiological expertise based in the Communicable Disease Surveillance Centre to support local services</li> <li>• Determine the priorities for action and the directorate's contribution to the infection control program</li> </ul>

#### 4.1.4 Key Component 3: Build Up Checklists for Preventing and Controlling HCAI

**Definition:** Checklist is a list of items required, things to be done, or points to be considered, used as a reminder. A checklist may be used to ensure patients and their family have been advised of all the appropriate infection control precautions to be taken.

**Outcome:** Improve the process for delivery of care with established/accepted quality standards or implement change to prevent and control infection through hospital's clinical QI programs.

**Responsibility:** Infection control team will be responsible to ensure the checklist for preventing and controlling HCAI is used when the patient is due to be discharged.

Activities	Means of achieving
Developing the checklist for daily goals in general ward / labor room / coronary care unit (CCU) / ICU / neonatal intensive care unit (NICU) / special care newborn unit (SCANU)	<ul style="list-style-type: none"> <li>• A list of daily goals provided to general ward / labor room / CCU / ICU / NICU / SCANU staffs to state the tasks to be completed, care plan, and communication with patients and families</li> <li>• The daily goals sheet first forces explicit objectives to be stipulated for each patient, which can be reviewed and monitored</li> <li>• Ensure everyone works from the same set of assumptions and to the same plan</li> </ul>
Creating the surgical safety checklist	<ul style="list-style-type: none"> <li>• Surgical safety checklist ensures entire operating room team understands the patient, the surgical procedure, the equipment needed, and evidence-based interventions</li> <li>• The 19-item checklist is completed in three stages: before induction of anesthesia, just before skin incision, and before the patient leaves the operating room</li> </ul>
Checklist for HCPs safety	<ul style="list-style-type: none"> <li>• Ensure a checklist of daily and weekly activities of HCPs to maintain their own safety</li> <li>• Specific checklist for infectious diseases is necessary for HCPs</li> <li>• Develop capacity of HCPs on using checklists</li> </ul>

#### 4.1.5 Key Component 4: Clean Environment, Disinfection, and Sterilization

**Definition:** Cleaning is making something free of dirt, marks, or mess, especially by washing, wiping, or brushing. Disinfection is the process of cleaning something, especially with a chemical, in order to destroy bacteria. Sterilization is the process of making something free from bacteria or other living microorganisms.

**Outcome:** Distinguish the various methods of cleaning, disinfection, and sterilization to prevent and control infection.

**Responsibility:** In delivering a safe and clean care environment, all staff have responsibility for ensuring that cleanliness standards are maintained and all patient equipment is cleaned between each patient use to standards as outlined within the National Specification for Cleanliness. It is the responsibility of department/ward/unit staff to ensure that blood and body fluid spillage in their area is cleaned up promptly, safely, and appropriately. It is the responsibility of the staff member reporting the spillage to ensure that the health and safety of others is maintained until the spillage is removed.

Activities	Means of achieving
Using risk management principles to implement systems that maintain a clean and hygienic environment for patients and HCPs	<p><b>Clean Environment</b></p> <p>Cleaning is the removal of organic and inorganic materials from objects and surfaces and is normally accomplished by detergent and enzymatic agents<sup>9</sup></p> <ul style="list-style-type: none"> <li>• Implementation of standard policy for waste management, sterile gloves by non-touch technique, cleaning and laundry, safe water, food storage and preparation, building design including ventilation</li> <li>• For instrument cleaning, a neutral or near-neutral pH detergent solution is commonly used because such solutions generally provide the best material compatibility profile and good soil removal. Enzymes, usually proteases, sometimes are added to neutral pH solutions to assist in removing organic material. Cleaning solutions also can contain lipases and amylases</li> </ul> <p><b>Disinfection and Sterilization</b></p> <ul style="list-style-type: none"> <li>• Appropriate use and sterilization of equipment by autoclave</li> <li>• Chemical sterilization for sharp and soft equipment by hydrogen peroxide, peracetic acid, ethylene oxide</li> <li>• Use of disinfectants including chlorhexidine, alcohol rub, 2.4% glutaraldehyde</li> <li>• Use low-temperature sterilization technologies for reprocessing critical items damaged by heat</li> <li>• Use immediately (no long term storage) critical items that have been sterilized by peracetic acid immersion process<sup>3</sup></li> </ul>

## 4.2 Domain 2: Medication Safety

Medicines have been proven to be very beneficial for treating illness and preventing disease. This success has resulted in a dramatic increase in medication use in recent times. Unfortunately, this increase in use and expansion of the pharmaceutical industry has also brought with it an increase in hazards, error, and adverse events associated with medication use.

Inappropriate selection and use of medicines can cause considerable harm and is a frequent cause of medical error. Irrational use of antibiotics can lead to resistance in microbes and, at times, the organisms can develop resistance to all the available antibiotics. A regional strategy to control antimicrobial resistance was developed. Medication error can also occur due to miscommunication during handovers and the presence of sound-alike or look-alike drugs causing inadvertent mistakes in drug administration.<sup>13, 14, 15</sup>

### 4.2.1 Main Outcomes

- Provide an overview of medication safety
- Learn and practice ways to improve the safety of medication use
- Ensure a clean environment for medication
- Develop a national formulary of essential medicines focusing on priority conditions

- Provide information regarding appropriate use, side effects, and drug interactions of all medicines, including traditional medicines easily available
- Adopt proven standardized approaches designed to reduce medication-related adverse events
- Establish national-level system of monitoring antimicrobial resistance in alignment with the regional strategy on prevention and containment of antimicrobial resistance

#### 4.2.2 Key Component 1: Governance and Systems for Medication Safety

**Definition:** The system through which health care teams are accountable for the quality, safety, and experience of patients in the care they have delivered. Those teams or Trust Boards that regard medicines management as a support service provided by the pharmacy risk failing to deliver their clinical governance obligations. Medicines management is a strategic issue, fundamental to the way that hospitals work and to the quality of patient care.

**Outcome:** Governance and systems for medicines management covers a number of tasks, including assessing, supplying, prescribing, dispensing, administering, reviewing, and assisting people with their medicines. Governance ensures medication safety by arranging: safety culture, infrastructure, data communication, and training.

**Responsibility:** The QI Committee works toward governance and systems for medication safety. It is responsible for reviewing and approving the annual QI Work Plan and Evaluation and for overseeing all QI activities. It is the main forum for member and HCP participation in assuring the quality and clinical oversight of the health care delivery.

Activities	Means of achieving
Developing and implementing governance arrangements and organizational policies, procedures, and/or protocols for medication safety that are consistent with national guideline	<p><b>Medicines Management Governance Committees</b> The Policy describes the committee/working group structure and responsibilities required to deliver a safe system of practice. Central to the structure is the emphasis on patient safety and the monitoring role of the Medicines Management Governance Committee.<sup>10</sup></p> <ul style="list-style-type: none"> <li>• The Medicines Management Governance Committee is to ensure that medicines are managed safely, effectively, and economically through good practice, risk assessment, and other control mechanisms, and to advise the Trust Board accordingly.</li> <li>• All policies and guidelines related to medicines management are subject to regular review and approval by the Medicines Management Governance Committee.</li> </ul> <p><b>Medicines Management Strategy Group</b> The Medicines Management Strategy Group is a committee with delegated responsibility for aspects of medicines management strategy, in particular approving planned expenditures relating to the introduction of new medicine.</p>

Activities	Means of achieving
	<p><b>Medication Safety Working Group</b>  The Medication Safety Working Group is a subcommittee of The Medicines Management Committee. it comprises representatives from pharmacy, medical, nursing, and education. Aims of this working group are to:</p> <ul style="list-style-type: none"> <li>• Begin by focusing on high-alert medications as these are the most likely to cause harm</li> <li>• Promote medication safety across the Trust to all staff and patients</li> <li>• Promote an open and just culture of drug incident reporting</li> <li>• Oversee and ensure a coordinated approach to medication safety</li> <li>• Promote appropriate reporting of safeguarding issues associated with medication incidents</li> </ul> <p><b>Safe Prescribing and Medical Education Group</b>  The Safe Prescribing and Medical Education Group, chaired by the medical education services manager, is a subcommittee of the Medicines Management Committee, with specific responsibility for developing strategies to support safe prescribing through the provision of medical education at both postgraduate and undergraduate level.</p> <p><b>Antimicrobial Stewardship Team</b>  The antimicrobial stewardship team is responsible for formulating and disseminating antimicrobial stewardship QI framework and targeting for:</p> <ul style="list-style-type: none"> <li>• Number of antimicrobial agents for which resistance against nationally identified microorganisms has stabilized or decreased (at least five drugs for which resistance has stabilized or decreased by 2020)</li> <li>• Number of antimicrobial agents of which the annual use has declined by 25% as indicated by defined daily doses (DDD) per 1,000 patient days. (at least five antimicrobial agents with annual utilization reduced by 25% as indicated by DDD by 2020)</li> <li>• Percentage of hospitals in the public and private sector in a country with a policy for rational use of antimicrobials. (at least 75% of hospitals in public and private sector with policy for rational use of antimicrobials by 2020)</li> </ul> <p><b>Intravenous Immunoglobulin Committee</b></p> <ul style="list-style-type: none"> <li>• Develop a local policy to implement the Demand Management Plan</li> <li>• Review and approve applications for use of immunoglobulins with reference to the Department of Health Clinical Guidelines</li> <li>• Ensure that all data are recorded in the national immunoglobulin database</li> <li>• Review annual immunoglobulin use</li> </ul>

Activities	Means of achieving
	<p><b>Cancer Treatment/Radiotherapy Committee</b></p> <ul style="list-style-type: none"> <li>• To act in an advisory capacity for issues pertaining to chemotherapy and oncology systemic therapies and liaise with organizations, external agencies, groups, and committees</li> <li>• To evaluate, advise, and support the implementation of local and national policies/guidelines pertaining to chemotherapy/ oncology systemic therapies</li> <li>• To horizon scan and contribute to planning.<sup>10</sup></li> <li>• To focus on medications at the interface (Third WHO Challenge)</li> </ul>
Using a robust organization-wide system of reporting, investigating, and managing change to respond to medication incidents	<ul style="list-style-type: none"> <li>• Medication incidents are regularly monitored, reported, and investigated</li> <li>• Action is taken to reduce the risk of adverse medication incidents</li> </ul>
Safety for HCPs	<ul style="list-style-type: none"> <li>• Ensure handwashing, the use of barrier protection such as gloves and aprons, and safe handling and disposal of “sharps” and medical waste when dealing with infected patients</li> </ul>

#### 4.2.3 Key Component 2: Documentation of Patient Information

**Definition:** Medical record documentation is required to record pertinent facts, findings, and observations about a patient’s health history including past and present illnesses, examinations, tests, treatments, and outcomes. The medical record documents the care of the patient and is an important element contributing to high-quality care.

**Outcome:** An appropriately documented medical record reduces many of the hassles associated with claims processing. Medical records serve as legal documentation to verify the care provided.

**Responsibility:** Medical, nursing, and pharmacy practitioners all have a role and shared responsibility to ensure that the proper documentation of patient information is maintained. Nurses’ roles include suggesting medication and asking the physician to check patient’s medication or to change medications. In addition, nurses have a responsibility to prevent, evaluate, and report drug effects, side effects, and adverse drug events. In the participating hospital, nurses also program the drug administration times and document them in the medicine software.



Activities	Means of achieving
<p>Taking an accurate medication history when a patient presents to a health service organization, or as early as possible in the episode of care, which is then available at the point of care</p>	<p><b>Documentation of Medical Records</b>  Particular emphasis must be placed on the five factors that improve the quality and usefulness of charted information:<sup>11</sup></p> <ol style="list-style-type: none"> <li>1. Accuracy</li> <li>2. Relevance</li> <li>3. Completeness</li> <li>4. Timeliness</li> <li>5. Confidentiality</li> </ol> <p><b>Steps for Documentation</b></p> <ul style="list-style-type: none"> <li>• Collect medical history of a patient properly</li> <li>• Keep a unique, individual record for each patient</li> <li>• Establish an organized recordkeeping system to ensure that medical records are easily retrievable for review and available for use when needed, including at each patient visit</li> <li>• Store and maintain medical records in a centralized and secured location accessible only to authorized personnel and provide equivalent security for electronic medical records</li> <li>• Maintain and organize documents within medical records in a specified order</li> <li>• Ensure that documents are fastened securely within a medical record file</li> <li>• Provide periodic training in confidentiality and security for patient information</li> </ul> <p><b>Documentation must include the following content:</b></p> <ul style="list-style-type: none"> <li>• Problem list, including significant illnesses and medical conditions</li> <li>• Medications</li> <li>• Adverse drug reactions</li> <li>• Allergies</li> <li>• Smoking status</li> <li>• Any history of alcohol use or substance abuse</li> <li>• Biographical or personal data</li> <li>• Pertinent history</li> <li>• Physical exams</li> <li>• Documentation of clinical findings and evaluation for each visit</li> <li>• Laboratory and other studies that signify review by the ordering HCP</li> <li>• Working diagnoses consistent with findings and test results</li> <li>• Treatment plans consistent with diagnoses</li> <li>• A date for return visits or a follow-up plan for each encounter</li> <li>• Previous problems addressed in follow-up visits</li> <li>• A current immunization record</li> <li>• Preventive services and risk screening</li> <li>• Risk products for disposal</li> </ul>

Activities	Means of achieving
	<p><b>Primary care medical records must document:</b></p> <ul style="list-style-type: none"> <li>• All services provided by a practitioner who provides primary care services</li> <li>• All ancillary services and diagnostic tests ordered by a practitioner</li> <li>• All diagnostic and therapeutic services for which a patient was referred by a practitioner, such as home health nursing reports, specialty physician reports, hospital discharge reports, or physical therapy report</li> </ul>

#### 4.2.4 Key Component 3: Medication Management Processes

**Definition:** Medication Management Standards promote a collaborative approach to prevent and reduce medication errors and near misses by addressing all aspects of the medication management process, from prescription, selection, preparation, and dispensing to administration of the medication and ongoing monitoring of clients.<sup>6</sup>

**Outcome:** Assess medication system and identify risk points, reduce medication errors, improve patient outcomes, enhance productivity, and boost staff performance and confidence.

**Responsibility:** Physician writes the medication order. Registered nurse transcribes the order. Pharmacy prepares the medication. Registered nurse prepares medication. Registered nurse administers medication to the patient.

Activities	Means of achieving
<p>Ensuring that medicines are distributed and stored securely, safely, and in accordance with the manufacturer’s directions, legislation, jurisdictional orders, and operational directives</p>	<p><b>The standards contain the following sections:</b></p> <ul style="list-style-type: none"> <li>• Planning the Medication Management System</li> <li>• Training and Competency Evaluation</li> <li>• Accessing Client and Medication Information</li> <li>• Selecting and Procuring Medications</li> <li>• Storing Medications in the Pharmacy and Client Service Areas</li> <li>• Prescribing and Ordering Medications</li> <li>• Preparing Medications</li> <li>• Labeling and Packaging Medications</li> <li>• Dispensing and Delivering Medications</li> <li>• Administering Medications and Client Monitoring</li> <li>• Evaluating the Medication Management System</li> </ul> <p><b>Risks associated with secure storage and safe distribution of medicines are regularly reviewed</b></p> <ul style="list-style-type: none"> <li>• Action is taken to reduce the risks associated with storage and distribution of medicines</li> <li>• The storage of temperature-sensitive medicines is monitored.</li> <li>• A system that is consistent with legislative and jurisdictional requirements for the disposal of unused, unwanted, or expired medications is in place<sup>12</sup></li> <li>• The system for disposal of unused, unwanted, or expired medications is regularly monitored</li> </ul>

### 4.3 Domain 3: Patient Identification (ID) and Procedure Matching

Patient ID and the matching of a patient to an intended care process is an activity that is performed routinely in all care settings. Risks to patient safety occur when there is a mismatch between a given patient and components of their care, whether those components are diagnostic, therapeutic, or supportive. Much of the information about the number of patient mismatching events comes from incident reporting systems.

Throughout the health care industry, the failure to correctly identify patients continues to result in medication errors, transfusion errors, testing errors, wrong person procedures, and the discharge of infants to the wrong families. The purpose of this guideline is to set out actions for correct patient ID.<sup>13</sup>

#### 4.3.1 Main Outcomes

- Correct ID of individual patients use approved patient identifiers on registration or admission and when providing care, therapy, services, advice, and/or information
- Transfer of care use approved identifiers when transferring responsibility of care and whenever clinical handover, patient transfer, or discharge documentation is generated
- Match patients to their intended procedure, treatment, or investigation apply explicit processes
- Assess risk of mismatching report, investigate, and review incidents of incorrect patient ID and procedural mismatching events

#### 4.3.2 Standard 1: Governance and System of Patient ID and Procedure Matching

**Definition:** The responsibility for the management of patient ID necessarily involves the whole management chain of command, and all members of staff have a responsibility to ensure the effective implementation of the policy and procedures.

**Outcome:** Ensure implemented policy and procedures are in place for ongoing checks throughout the patient care episode.

**Responsibility:** The role of clinicians is essential in patient ID and procedure matching. Improvements to the system can be achieved when clinicians actively participate in organizational processes, safety systems, and improvement initiatives. Clinicians make health systems safer and more effective if they have a broad understanding of their responsibility for safety and quality in health care, follow safety and quality procedures, supervise and educate other members of the workforce, and participate in the review of performance procedures, individually or as part of a team.

Activities	Means of achieving
<p>Developing, implementing, monitoring, and reporting governance system for infection prevention and control for patient ID and procedure matching</p>	<p>An organization-wide patient ID system is the set of written policies, procedures, and protocols designed to ensure the consistent and correct ID of a patient at any point and time during an admission or course of treatment.<sup>12</sup></p> <p>Governance of the patient ID and procedure matching system includes:</p> <ul style="list-style-type: none"> <li>• Ensuring that the necessary policies, procedures, and protocols are developed and are correctly applied across the organization</li> <li>• Developing feedback mechanisms that enable recommendations from the analysis of audit data to be acted on at an organizational level as well as at the local level</li> </ul> <p><b>Monitor and Review</b></p> <p>Local audit and review of the policy will include:</p> <ul style="list-style-type: none"> <li>• Annual update of the policy with amendments made, as necessary, and cascaded to staff</li> <li>• Risk management review of safety incidents relating to wristbands, involving, if necessary, root cause analysis</li> <li>• Audit will be carried out on five patients every month as part of the quality audit identifying any reasons why individuals may not wear wristbands and the efficacy of alternative arrangements</li> <li>• Maintaining and review of policy</li> <li>• Annual update in line with policy regarding policy implementation</li> </ul> <p>Monitor data received from the incident reporting system so that learning from any patient mismatching errors made in individual areas can be applied across the organization.</p>

### 4.3.3 Key Component 2: ID of Individual Patients

**Definition:** Correct ID is an integral part of providing patient care and takes place at the beginning of a care episode. Processes for matching patients to their intended procedure, treatment, or investigation are essential for ensuring that the right patient receives the right care.

**Outcome:** All patients are consistently and correctly identified and matched to their intended care, health records, investigation and procedure requests, prescriptions, results, and all other documentation.

**Responsibility:** A system of organization-wide governance to ensure that any issues are investigated and responsive action is taken across the organization.

Activities	Means of achieving
<p>Regularly reviewing the effectiveness of a patient ID system including the associated policies, procedures, and/or protocols that:</p> <ul style="list-style-type: none"> <li>• Define approved patient identifiers</li> <li>• Require at least three approved patient identifiers on registration or admission, referral, and discharge</li> </ul>	<p><b>Consistently and Correctly Identify Individual Patients</b></p> <ul style="list-style-type: none"> <li>• Identify patients correctly before providing any health care services or interventions; failure to consistently and correctly identify patients constitutes a serious risk to patient safety</li> <li>• Use approved identifiers; wherever possible these are the core patient identifiers, namely: <ol style="list-style-type: none"> <li>1. Patient name (family and given names)</li> <li>2. Date of birth</li> <li>3. National Health Index number</li> </ol> </li> <li>• Ask the patient to state their full name and date of birth; <b>never</b> ask the patient “Are you Mr. Jones?”; the patient may have misheard and mistakenly agree</li> <li>• Never use a patient’s bed or room number or assume that the name tag above the bed is correct; bed and room numbers are not unique to the patient and can change</li> <li>• Always check the patient against the patient’s ID band and against any associated documentation; human error may result in the wrong ID band being put on the patient or the wrong label being placed on documentation</li> </ul> <p><b>Check Patient Identifiers against Printed Adhesive (Sticky) Patient Labels<sup>10</sup></b></p> <ul style="list-style-type: none"> <li>• Patient labels are checked for correctness: <ul style="list-style-type: none"> <li>- Before and after printing</li> <li>- Before being placed into a patient’s health record</li> <li>- Before being attached to forms and other documentation associated with the patient (for example, clinical notes pages, request forms, consent forms)</li> </ul> </li> </ul> <p><b>Matching Patients with their Care: Explicit Processes</b></p> <ul style="list-style-type: none"> <li>• Use approved forms and processes, e.g. informed consent</li> <li>• All explicit processes to confirm ID undertaken by staff are documented in the patient’s health record; associated forms and checklists are fully completed and form part of the health record</li> <li>• Include the patients in verification of their ID and marking of the procedural site</li> </ul> <p><b>Assess Risk of Mismatching</b></p> <p>Report, investigate, and review incidents of incorrect patient ID and procedural mismatching events. Report all incidents that involve incorrect patient ID or procedure matching:</p> <ul style="list-style-type: none"> <li>• Report to the charge nurse manager and attending medical officer</li> <li>• Document in the patient’s health record</li> <li>• Complete a Reportable Event Form</li> <li>• Inform patients and/or carer</li> </ul>

## 4.4 Domain 4: Clinical Handover

Handover is the transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group. The aim of any handover is to achieve the efficient communication of high-quality clinical information at the time when the responsibility for patient care is transferred. Good handover is at the heart of an effective health care system along with patient's clinical documentation, letters of referral, and transfer and discharge documentation.

Good handover does not happen by chance. It requires work by all those involved, including organizations and individuals, and in some cases a change in culture.

### 4.4.1 Main Outcomes

- Safety is protected—lapses in information handover can, and do, lead to mistakes being made, which increases morbidity and mortality
- Greater continuity of care poor handover can lead to fragmentation and inconsistency of care
- Increased service satisfaction every doctor attending a patient can begin where the last one left off; patient perception of professionalism is reaffirmed and improved
- Increased efficiency of the health care system and improvement to patient care through timely investigation and diagnosis, management, and discharge

### 4.4.2 Key Component 1: Governance and Leadership for Effective Clinical Handover

**Definition:** Patient safety, as part of clinical governance, is rightfully at the heart of the organizational structures, as well as being a principal concern of the wider public. To ensure the implementation of effective, accurate, and timely clinical handover, health services must provide organizational governance and leadership.

**Outcome:** Positive handover-focused culture. Learning and sharing good practice.

**Responsibility:** QI Committee, physician, nurse, and team leader of each specific sector are responsible. The relationships and responsibilities are established by a health service organization between its executives, workforce, and stakeholders. Governance incorporates the set of processes, customs, policy directives, laws, and conventions affecting the way an organization is directed, administered, or controlled.

Activities	Means of achieving
Developing and implementing an organizational system for structured clinical handover that is relevant to the health care setting and specialties, including: <ul style="list-style-type: none"> <li>• Documented policy, procedures, and/or protocols</li> <li>• Agreed-upon tools and guides</li> </ul>	<b>Clinical Handover Policies, Procedures, and/or Protocols<sup>14</sup></b> <ul style="list-style-type: none"> <li>• Handover at a fixed time and of sufficient length</li> <li>• Shifts for all involved staff are coordinated to allow them to attend during working time</li> <li>• Main handover is generally held in the morning; however, handover is also needed at the change of other shifts and between shifts; morning handover allows the team to discuss overnight patient admissions, gives them a head start with their morning rounds, and helps them plan the day's work</li> <li>• Junior doctor should also hand over the patient's status (special one) to senior doctors in the morning</li> </ul>

Activities	Means of achieving
	<ul style="list-style-type: none"> <li>• Doctors must conduct a thorough handover to ensure patient care is maintained if they are absent for extended periods, for example, while they are away on vacation</li> <li>• Special attention should be given during handover of patients infected with, for example, hepatitis B or C, HIV, TB</li> <li>• Have access to lab results, X-rays, clinical information, the internet intranet, and telephones</li> </ul> <p><b>Who Should Be Involved<sup>14</sup></b>  Each hospital/unit needs to identify the key people who need to attend handover:</p> <ul style="list-style-type: none"> <li>• Clinical handover is equally important to all members of the medical team, both junior and senior; the ideal model includes all grades of staff from each included specialty, subspecialty, or ward as appropriate; the nurse clinical coordinator should be involved in the major handover, usually the morning one</li> <li>• Teams from all attend to ensure that they receive necessary patient information and make timely decisions about patient care</li> <li>• The involvement of senior clinicians is essential; this ensures that appropriate level management decisions are made and that handover forms a constructive part of medical education, conveying the seriousness with which the organization takes this process</li> <li>• The handover leader ensures the team is aware of any new members of the team and that adequate arrangements are in place to familiarize new members of the team with local systems and hospital geography</li> </ul>

#### 4.4.3 Key Component 2: Clinical Handover Process

**Definition:** The process where critical exchanges of clinical and health information (clinical handover) occurs repeatedly across health care settings and between health professionals throughout a patient journey.

**Outcome:** Develop and ensure all patients' clinical handover relevant issues at all levels of doctors and the rest of the multidisciplinary team.

**Responsibility:** Physicians and nurses are responsible for transferring accountability for patient care to another, ensuring comprehension, acknowledgment, and acceptance of responsibility for the patient. Any areas of concern or points that require clarification should be discussed with the clinician providing handover before accepting responsibility for the patient.

Activities	Means of achieving
Establishing and maintaining a structured and documented processes for clinical handover	<p><b>Major Themes of Handover<sup>15</sup></b></p> <ul style="list-style-type: none"> <li>• Interprofessional handover</li> <li>• Interdepartmental handover</li> <li>• Shift to shift handover</li> <li>• Hospital to community handover</li> <li>• Providing verbal handover only</li> <li>• The use of references and abbreviations in handover</li> </ul> <p><b>How Handover Happens<sup>14</sup></b></p> <ul style="list-style-type: none"> <li>• Patient database will be updated every day</li> <li>• Handover supervised by the most senior clinician, nurse in charge, present and must have clear leadership</li> <li>• Clear and relevant information</li> <li>• Regular review of the system is required, for example at clinical governance meetings, appraisal meetings, through surveys, and monitoring incident reports</li> <li>• Floor doctor and nurse responsible for ensuring handover happens as expected</li> </ul> <p><b>Written handover includes:</b></p> <ul style="list-style-type: none"> <li>• Current inpatients</li> <li>• Accepted and referred patients due to be assessed</li> <li>• Accurate location of all patients</li> <li>• Operational matters directly relevant to clinical care such as ICU bed availability</li> <li>• Information to convey to the following shift</li> <li>• Patients brought to the attention of the critical care outreach team</li> <li>• Death/discharge certificate handover following shifting</li> </ul> <p><b>Electronic handover tools include:</b></p> <ul style="list-style-type: none"> <li>• A “live” list on the hospital intranet of the names and contact details for doctors</li> <li>• Cover each consultant’s or specialty’s patients at any given time</li> <li>• System that identifies those patients most in need of frequent follow-ups</li> <li>• Patient information on password-protected hand-held computers (doctors synchronize their devices at the change of shifts)</li> </ul>

## 4.5 Domain 5: Blood and Blood Products

Safe blood transfusion is a process of ensuring that everyone has access to blood and blood products that are as safe as possible, available at reasonable cost, adequate to meet the needs of patients, transfused only when necessary, and provided as part of a sustainable blood program within the existing health care system.

Blood is used for a multitude of lifesaving purposes, including assisting patients undergoing surgery, treating diseases including anemia and malaria, caring for patients on chemotherapy, and supporting women with complications during childbirth. The unavailability of safe blood can lead to serious health consequences such as death from hemorrhage or the transmission



of life-threatening infections, including HIV/AIDS, hepatitis B and C, syphilis, and other infections. There should be preparedness plans to provide rapid response to emergency situations and for postdisaster reconstruction of blood transfusion services.

#### 4.5.1 Main Outcomes

- Develop locally based transfusion policies and ensure all staff involved in the clinical transfusion process are appropriately trained and their competency assessed
- Prevent ID errors at the time of pre-transfusion blood sampling, sample handling in the laboratory, collecting the component from the blood bank, or transfusion to the patient
- Avoid unnecessary and inappropriate transfusions
- Prevent “wrong blood into patient,” which is nearly always caused by human error and may cause fatal reactions due to blood group incompatibility

#### 4.5.2 Key Component 1: Governance and Systems for Blood and Blood Product and Clinical Use

**Definition:** All activities related to blood collection, testing, processing, storage, and distribution should be coordinated at the national level through effective organization and integrated blood supply networks. The national blood system should be governed by national blood policy and legislative framework to promote uniform implementation of standards and consistency in the quality and safety of blood and blood products.

**Outcome:** Learning, sharing, and monitoring good practice about safe blood transfusion.

**Responsibilities:** All clinical staff are aware of not only the risks and benefits of transfusion but also the responsibility that accompanies prescribing, administering, and caring for patients having blood products as part of their treatment. All nursing and midwifery staff who will be caring for patients having blood and blood products as part of their medical treatment and all junior medical staff who request and/or prescribe blood and blood products or provide medical care for any patient having blood or blood products as part of their treatment must successfully complete the Blood Transfusion Practice course and assessment quiz.

Activities	Means of achieving
Developing governance systems for safe and appropriate prescription, administration, and management of blood and blood products	Governance program should cover all health institutions involved in the blood transfusion process <ul style="list-style-type: none"> <li>• Standard operating procedures must be available for all processes from blood collection up to issuing of blood</li> <li>• All laboratory tests must be conducted according to well validated and documented techniques using appropriate controls</li> <li>• Blood collection venues, testing and processing laboratories, and blood banks must conform to minimum required standards</li> <li>• Records shall be maintained for key items of equipment</li> <li>• All blood and blood products must be handled using aseptic techniques</li> <li>• There should be a documented quality audit program to ensure safety and efficacy of the blood/blood products</li> <li>• All institutions should participate in an approved external quality assurance scheme</li> </ul>

### 4.5.3 Key Component 2: Patient Database

**Definition:** Patient database means all documentation including history, new findings, and old existing information for the individual patient.

**Outcome:** Reduce transfusion-related hazard and improve the QoC in hospitals, practitioner’s offices, clinics, and various other health care settings.

**Responsibilities:** Ward managers are responsible for supplying details of transfusions which do not have an electronic record. Medical staff members are responsible for prescribing blood, blood components, or blood products appropriate to the needs of the patient and obtaining and documenting consent. Medical and nursing staffs are responsible for documentation of indications for transfusion, number of units administered, and observations recorded in patients’ medical records and for keeping electronic equipment and mobile printers charged and in good working order, reporting faults immediately to the team.

Activities	Means of achieving
<p><b>Patient treatment plan, the clinical workforce accurately documenting:</b></p> <ul style="list-style-type: none"> <li>• Relevant medical conditions</li> <li>• Indications for transfusion</li> <li>• Any special product or transfusion requirements</li> <li>• Known patient transfusion history</li> <li>• Type and volume of product transfusion</li> <li>• Patient response to transfusion</li> </ul>	<p>Proper information about blood donor:<sup>16</sup></p> <ul style="list-style-type: none"> <li>• Who is eligible to donate</li> <li>• How much blood will be collected</li> <li>• Tests to be carried out</li> <li>• Risks of blood donation</li> </ul> <p><b>Assessment of the Fitness of Donor</b></p> <p>Positive patient ID:</p> <ul style="list-style-type: none"> <li>• Last name, first name, date of birth, unique ID number</li> <li>• Whenever possible ask patients to state their full name and date of birth; for patients who are unable to identify themselves (pediatric, unconscious, confused, or language barrier) seek confirmation of identity from a parent or carer at the bedside</li> <li>• All paperwork relating to the patient must include, and be identical in every detail to, the minimum patient identifiers on the identity band</li> </ul> <p><b>Patient Information and Consent for Transfusion</b></p> <p>Where possible, patients should have the risks, benefits, and alternatives to transfusion explained to them in a timely and understandable manner. Standardized patient information, such as national patient information leaflets, should be used wherever possible.</p> <p><b>Pre-transfusion documentation:</b></p> <ul style="list-style-type: none"> <li>• Reason for transfusion (clinical and laboratory data) Summary of information provided to patient (benefits, risks, alternatives) and patient consent</li> </ul> <p><b>For pre-transfusion testing all patients being sampled must be positively identified:</b></p> <ul style="list-style-type: none"> <li>• Collection of the blood sample from the patient into the sample tubes and sample labeling must be a continuous, uninterrupted event involving one patient and one trained and competency-assessed HCP</li> </ul>

Activities	Means of achieving
	<ul style="list-style-type: none"> <li>• Sample tubes must not be prelabeled</li> <li>• The request form should be signed by the person collecting the sample</li> </ul> <p><b>The transfusion “prescription” must contain the minimum patient identifiers and specify:</b></p> <ul style="list-style-type: none"> <li>• Components to be transfused</li> <li>• Date of transfusion</li> <li>• Volume/number of units to be transfused and the rate or duration of transfusion</li> <li>• Special requirements</li> </ul>

#### 4.5.4 Key Component 3: Managing Blood and Blood Product Safety

**Definition:** Describes the simple procedures for the safe storage and transportation of blood and blood components that should be followed in every blood bank or transfusion service, whatever its size and the equipment and materials available.

**Outcome:** A focus on the storage and transportation of blood and blood components that have been collected or prepared in plastic blood collection bags containing an anticoagulant preservative solution.

**Responsibilities:** The blood bank shall have a medical director who is a licensed physician and qualified by education, training, and/or experience. The medical director shall have responsibility and authority for all medical and technical policies, processes, and procedures including those that pertain to laboratory personnel and test performance and for the consultative and support services that relate to the care and safety of donors and/or transfusion recipients. The medical director may delegate these responsibilities to another qualified physician; however, the medical director shall retain ultimate responsibility for medical director duties.

Activities	Means of achieving
<p>Ensuring the receipt, storage, collection, and transport of blood and blood products within the organization are consistent with guidelines<sup>16</sup></p>	<p><b>The Blood Cold Chain</b></p> <p>The “blood cold chain” is a systematic process for the safe storage and transportation of blood from its collection from the donor to its administration to a patient who requires transfusion.</p> <p>The essential parts of the blood cold chain are:</p> <ul style="list-style-type: none"> <li>• Trained staff</li> <li>• Standard operating procedures</li> <li>• Suitable equipment for the safe storage and transportation of blood and blood products</li> <li>• Controlled environment</li> <li>• Monitoring of processes, equipment, and the quality of the products</li> </ul> <p>Processes for cold chain management are:</p> <ul style="list-style-type: none"> <li>• Storage of blood and blood products</li> <li>• Packing and transportation of blood and blood products</li> </ul>

Activities	Means of achieving
	<ul style="list-style-type: none"> <li>• Maintenance of blood cold chain equipment</li> </ul> <p>Storage of blood and blood products:</p> <ul style="list-style-type: none"> <li>• Whole blood and red cells must be stored at temperature of +2 °C to +6 °C</li> <li>• Whole blood and red cells must never be allowed to freeze</li> <li>• Using anticoagulant preservative solution properly which stops blood from clotting</li> <li>• Fresh frozen plasma (FFP) is plasma that has been separated from a unit of whole blood within 6–8 hours of donation and has been rapidly frozen to, and maintained at, a temperature of –20 °C or colder</li> <li>• Platelet concentrates and other blood components should be kept at a temperature between +20 °C and +24 °C until they are processed</li> </ul> <p><b>The Blood Storage Refrigerator</b></p> <p>All staff should be trained to comply with the following procedure:</p> <ul style="list-style-type: none"> <li>• Open the door only when it is necessary to take out or put in blood</li> <li>• Arrange the blood so there is room for cold air to move around inside the refrigerator</li> <li>• The units of blood should be kept in baskets in an upright position or laid flat on the shelf. They should never be packed so tightly that the cold air cannot circulate</li> <li>• If only one refrigerator is available, store tested and untested blood, and cross-matched and uncross-matched blood in separate marked areas</li> <li>• Never keep anything except whole blood, red cells, or thawed FFP in the blood refrigerator</li> <li>• Never store platelet concentrates in a refrigerator as they lose their viability at low temperatures</li> <li>• Never store whole blood or red cells near the freezer compartment of a domestic refrigerator</li> </ul>

#### 4.5.5 Key Component 4: Communicating with Patients and Carers

**Definition:** Involvement of patients and their carers in case of blood transfusion which will help to provide safe health care.

**Outcome:** The involvement of individual patients in their own care and involvement of patients and carers in service design and evaluation.

**Responsibilities:** Phlebotomists and others taking blood samples are responsible for checking the identity of a patient before taking any blood samples, using safe techniques for obtaining blood, and correct labeling of blood sample tubes in accordance with Trust procedures. Porters are responsible for collecting blood components using a pick up slip obtained from the clinical area and scanning the bar codes on pick up slips, blood components, and compatibility labels when prompted to verify that the blood component is correct for the intended recipient. The Clinical Risk Management Committee is also responsible for identifying and managing risks associated with transfusion.

Activities	Means of achieving
The clinical workforce informing patients and carers about blood and blood product treatment options and the associated risks and benefits	<p><b>Patients and carers should:<sup>16</sup></b></p> <ul style="list-style-type: none"> <li>• Be involved in making decisions for service planning, developing models of care, measuring service, and evaluating systems of care</li> <li>• Participate in making decisions about their own health care and for this they will need to know and exercise their health care rights and be engaged in their health care and treatment decisions</li> <li>• Be able to access information about options and agreed-upon treatment plans</li> </ul>

#### 4.6 Domain 6: Preventing and Managing Pressure Injuries

Pressure injury is a localized injury to the skin and/or underlying tissue, usually located over a bony prominence. As a result of pressure, shear, friction or a combination of these factors, damage occurs to the skin, muscle, and/or bone. Immobility, such as that associated with extended bed rest in hospital, can cause pressure injuries. Pressure injuries are a major contributor to the care needs of patients within the health industry. In the majority of cases, pressure injuries are preventable. Pressure injuries can occur in any patient with any or all of the associated risk factors. Risk factors are not restricted to decreased mobility, but also include factors such as nutritional status, skin integrity, age, and the level of oxygenated blood supply to pressure points. A pressure injury can commence in any setting, including acute areas such as operating rooms and ICUs, and in children or adults of any age.

##### 4.6.1 Main Outcomes

- Minimize the incidence of pressure-related injuries to patients through adequate risk assessment, risk management, and appropriate treatment
- Establish a consistent, systematic best practice approach to pressure injury prevention and management
- Support health services to comply with the relevant quality health service standards in relation to pressure injury prevention and management
- Increase the awareness of staff, patients, and the public to the importance of pressure injury prevention and management strategies

#### 4.6.2 Key Component 1: Governance and Systems for the Prevention and Management of Pressure Injuries

**Definition:** Governance means set of relationships and responsibilities established by a health service organization between its executives, workforce, and stakeholders (including consumers).

**Outcome:** Monitoring compliance with the health service pressure injury policies, procedures, and protocols; ensuring there are systems in place to monitor and analyze pressure injury data; and conducting relevant QI activities.

**Responsibilities:** Health managers including the doctors and nurses are responsible.

Activities	Means of achieving
Developing and implementing policies, procedures, and/or protocols that are based on current best practice guidelines	<p><b>Develop or review policies, procedures, and/or protocols:</b></p> <ul style="list-style-type: none"> <li>• First pressure injury screen or assessment to guide clinical decision-making</li> <li>• Management of pressure injuries and factors related to their risk, including prevention or delay of complications</li> <li>• Processes, format, frequency, and forums for reviewing reported data</li> <li>• Use and maintenance of pressure injury prevention and management equipment and devices</li> <li>• Monitor the use of policies, procedures, and protocol</li> </ul> <p><b>Injury risk assessment:</b></p> <ul style="list-style-type: none"> <li>• Patient at risk of developing a pressure injury: the two-part assessment to be repeated</li> <li>• Patient not at risk or low risk: the two-part screen or assessment to be repeated</li> <li>• Pressure injuries present: skin inspection and pain assessment</li> </ul>

#### 4.6.3 Key Component 2: Preventing and Managing Pressure Injuries

**Definition:** Minimize the incidence of pressure-related injuries to patients through adequate risk assessment, risk management, and appropriate treatment.

**Outcome:** Encouraging a culture of harm prevention and patient participation in their own care and the availability and accessibility of necessary products and equipment to ensure safe and effective patient care for pressure injury prevention and management.

**Responsibilities:** Clinical staff including doctors and nurses will be responsible to handle pressure injuries. Doctors may seek support from the facility managers or director.

Activities	Means of achieving
Identifying risk factors for pressure injuries using an agreed-upon screening tool for all presenting patients within time frames set by best practice guidelines	<p>All patients must consider the primary predictors of pressure injury development:</p> <ul style="list-style-type: none"> <li>• Mobility/activity which can be restricted by physical, excessive weight, sensory, cognitive, substance-related, affect, and motivational problems</li> <li>• Factors influencing perfusion, e.g. diabetes, peripheral vascular disease, poor venous return</li> <li>• Skin/pressure injury status:</li> <li>• General skin status relating to factors which may make the skin more vulnerable to pressure injury development</li> <li>• If a patient has a history of pressure injury or pressure injury is present they will be deemed at high risk</li> </ul>
Implementing best practice management and ongoing monitoring as clinically indicated	<p>All patients identified as being at risk (with or without existing pressure injury) should have:</p> <ul style="list-style-type: none"> <li>• For inpatients, pressure injury prevention check for their effectiveness: <ul style="list-style-type: none"> <li>- At least every 4 hours</li> <li>- At every patient care intervention</li> <li>- At handover</li> <li>- On transfer of care episode</li> </ul> </li> <li>• Education of all patients/personal carers on regular repositioning and pressure relieving strategies</li> <li>• Management and monitoring of pain</li> <li>• Provision of appropriate products and equipment: support surfaces for beds, trolleys/wheelchairs, chairs, aids, equipment/devices, according to the patient's risk assessment</li> <li>• Reduction of pressure, friction by: <ul style="list-style-type: none"> <li>- Use of active support surfaces/positioning aids during care, including in operating room, ICU, and emergency department</li> <li>- Use of dressing products (note: dressing products do not reduce pressure)</li> <li>- Correct fitting, removal, and checking of pressure from devices, casts, and other clinical equipment</li> </ul> </li> <li>• Skin protection and moisture</li> </ul>

#### 4.6.4 Key Component 3: Communicating with Patients and Carers

**Definition:** Patients and carers are informed of the risks, prevention strategies, and management of pressure injuries.

**Outcome:** Increase the effectiveness of care plans as patients and carers can provide information about factors that are specific to the individual.

**Responsibilities:** Assigned doctors shall communicate with the patients and their families.

Activities	Means of achieving
Informing patients with a high risk of pressure injury, and their carers, about the risks, prevention strategies, and management of pressure injuries	<p>Patients and carers can assist HCPs to prevent and manage pressure injuries. To enable participation of patients and carers, staff should make available education to patients and/or carers as follows:</p> <ul style="list-style-type: none"> <li>• Provide opportunities for patients to discuss pressure injuries with clinicians on presentation for care and during care</li> <li>• Broadcast prevention and management messages about pressure injuries on patient in television and audio services</li> <li>• Provide space for patient comment and signature, and evaluation of the rate of completion</li> <li>• Systems in place to monitor education resources and records of attendance at training by staff on preventing and managing pressure injuries</li> </ul>

## 4.7 Domain 7: Recognizing and Responding to Clinical Deterioration in Acute Health Care

Acute illness can trigger an array of psychological and physiological responses that have the potential to be either beneficial or harmful. Ensuring that patients who deteriorate receive appropriate and timely care is a key safety and quality challenge. All patients should receive comprehensive care regardless of their location in the hospital or the time of day. Even though a range of systems have been introduced to better manage clinical deterioration, this area remains a high priority while patients continue to experience preventable adverse events because their deterioration is not identified or properly managed.

### 4.7.1 Main Outcomes

- Describe the elements essential for timely recognition and response to clinical deterioration of patients in acute health care facilities
- Enhance patient safety by recognition improving the vital signs and potential clinical deterioration
- Ensure a consistent approach to the recognition and response to clinical deterioration
- Health-related workers feel more confident in their knowledge and ability to assess and manage patients whose clinical condition is deteriorating

### 4.7.2 Key Component 1: Governance and System for Quick ID

**Definition:** Quick ID means recognizing that a patient's condition is deteriorating and responding to their needs in an appropriate and timely way.

**Outcome:** Recognize early signs of deterioration in acute and severely ill patients for further management.

**Responsibilities:** Health managers including doctors and nurses are responsible.



Activities	Means of achieving
<p>Developing, implementing, and regularly reviewing the effectiveness of governance arrangements and the policies, procedures, and/or protocols that are consistent with the requirements of the National Consensus Statement</p>	<p>Asleep or unconscious:</p> <ol style="list-style-type: none"> <li>1. The ability to recognize subtle changes in a person's neurological state will enable HCPs to detect signs of deterioration early by following common signs and symptoms associated with neurological decline and what these may indicate</li> <li>2. Glasgow Coma Scale scoring</li> <li>3. Management</li> <li>4. Document and reporting changes</li> </ol> <p>Sepsis:</p> <ul style="list-style-type: none"> <li>• Early recognition by clinical signs</li> <li>• In a suspected or a known case of sepsis, main management priorities across a range of clinical settings</li> </ul> <p><b>Cardiac/respiratory failure:</b> Identify difference between ventilation and oxygenation, and its cause</p> <p><b>Acute organ injury/failure:</b></p> <ul style="list-style-type: none"> <li>• ID of potential cause</li> <li>• Recognition</li> <li>• Management</li> <li>• Referral</li> </ul> <p><b>Any shock:</b></p> <ul style="list-style-type: none"> <li>• Normal physiological processes of fluid balance</li> <li>• Definition, cause, and recognition of hypovolemic shock</li> <li>• Recognize electrolyte disturbances early</li> </ul>

### 4.7.3 Key Component 2: Responding to Clinical Deterioration

**Definition:** A system of ensuring that observation monitoring, track and trigger, and escalation systems are in place and working well.

**Outcome:** Ensure that all patients who deteriorate receive a timely and appropriate response.

**Responsibilities:** Assigned doctor will play key role and will discuss with the other doctors and nurses to make decisions for management. Doctors may seek support from the health manager for quick decision-making.

Activities	Means of achieving
Using the system in place to ensure that specialized and timely care is available to patients whose condition is deteriorating	<p>Escalation policies, procedures, and/or protocols which describe the criteria that trigger a call for emergency assistance:</p> <ul style="list-style-type: none"> <li>• Triggers for emergency assistance</li> <li>• Method for activating the rapid response system</li> <li>• Responses, including who should attend and in what time frame</li> </ul> <p>Basic life support training for the clinical workforce, including mechanisms for monitoring participation and assessing competence</p> <p>Implement a mechanism for accessing at least one clinician with advanced life support skills at all times</p> <p>Arrangement of orientation, education, and training for HCPs</p> <p>Timely referral</p>

#### 4.7.4 Key Component 3: Communicating with Patients and Attendants

**Definition:** Patients and attendant are informed of the risks, prevention strategies, and management of clinical deterioration and acute health care.

**Outcome:** Increase the effectiveness of care plans as patients and carers can provide information about factors that are specific to the individual.

**Responsibilities:** Assigned doctor will have sole responsibility to communicate with the patients and their relatives. However, the doctor may also seek support from other doctors.

Activities	Means of achieving
Ensuring patients, families, and attendant are informed about and are supported so that they can participate in recognition and response systems and processes	<p>Provide information for patients and attendant about how to raise concerns about potential deterioration and its importance</p> <p>Implement a mechanism for receiving and preparing advance care plans in partnership with patients and attendant</p> <p>Discuss treatment options with patients and attendant</p> <p>Templates and forms for recording advance care plans</p> <p>Information resources including signs, posters, stickers, brochures, or other material for patients and attendant about when and how to call for assistance</p> <p>Documentation of QI processes detailing actions taken to address issues identified through review of patient and attendant opinion</p>

## 4.8 Domain 8: Preventing Fall-Associated Harm

A fall may result in fractures, lacerations, or internal bleeding, leading to increased health care utilization. Research shows that one-third of falls can be prevented. Fall prevention involves managing a patient’s underlying fall risk factors and optimizing the hospital’s physical design and environment.

Hospital personnel need to treat the problem that prompted the patient’s admission, keep the patient safe, and help the patient to maintain or recover physical and mental function. Thus, fall prevention must be balanced against other priorities. A number of practices have been shown to reduce the occurrence of falls, but these practices are not used systematically in all hospitals.

### 4.8.1 Main Outcomes

- Falls risk assessment and management plan completed
- Implement interventions that minimize harm if a patient falls
- Action list of interventions to minimize falls risk: plan developed and documented
- Complete on admission, after fall or change of condition, or when appropriate

### 4.8.2 Key Component 1: Governance and Systems for the Prevention of Falls

**Definition:** Governance means the set of relationships and responsibilities established by a health service organization between its executives, workforce, and stakeholders (including consumers).

**Outcome:** Monitoring compliance with the health service fall prevention policies, procedures, and protocols; ensuring there are systems in place to monitor and analyze fall prevention data; and conducting relevant QI activities.

**Responsibilities:** The role of managers in health service organizations is to implement and maintain systems, resources, education, and training to ensure that clinicians deliver safe, effective, and reliable health care. Nominate a sponsor from the senior governance group to take responsibility for presenting on the performance of fall prevention and management to the governing body.

Activities	Means of achieving
Developing, implementing, and reviewing policies, procedures, and/or protocols, including the associated tools, that are based on the current national guidelines for preventing falls and harm from falls	<p><b>Policy Statements</b></p> <p>All facilities must provide a safe environment in accordance with health and safety standards:</p> <ul style="list-style-type: none"> <li>• All patients must be assessed for their risk of falling at presentation to a facility</li> <li>• All patients identified as “at risk” of falling must have appropriate fall prevention strategies put in place</li> <li>• Fall prevention strategies must be documented in the patient’s clinical record</li> <li>• Safety measures should be printed and hanging on the wall</li> <li>• Reassessment of falls risk must occur regularly, and in particular:               <ul style="list-style-type: none"> <li>- If the health status of a patient has changed</li> <li>- When the patient transfers to another environment such as change of room, ward, etc.</li> <li>- After any fall or near fall</li> </ul> </li> </ul>

Activities	Means of achieving
	<ul style="list-style-type: none"> <li>• The patient and, where practicable, the family/carer must be included in the fall risk assessment process and fall prevention</li> <li>• Ensure administrative action if any negligence is found</li> </ul>

#### 4.8.3 Key Component 2: Screening and Assessing Risks of Falls and Harm from Falling

**Definition:** Screening is a process for evaluating the possible presence of a particular problem. The outcome is normally a simple yes or no. Assessment is a process for defining the nature of that problem, determining a diagnosis, and developing specific treatment recommendations for addressing the problem or diagnosis.

**Outcome:** Provide a framework for properly assessing falls to prevent and better manage them.

**Responsibilities:** A range of professionals share the responsibility for establishing and maintaining systems for assessing risks of falls and harm from falling. These include health service executives and owners, health service managers, clinicians, educators, and people with responsibility for policy and QI.

Activities	Means of achieving
Using a best practice–based tool to screen patients on presentation, during admission, and when clinically indicated for the risk of falls	<ul style="list-style-type: none"> <li>• Implement a “validated” fall risk assessment tool</li> <li>• Implement a standardized cognitive assessment tool and integrate into fall risk assessment tool</li> <li>• Ensure staff is adequately trained on the fall risk assessment tool</li> <li>• High fall risk implement high fall risk interventions per protocol: <ul style="list-style-type: none"> <li>- History of more than one fall within 6 months before admission</li> <li>- Patient has experienced a fall during this hospitalization</li> <li>- Patient is deemed high fall risk per protocol (e.g. seizure precautions)</li> </ul> </li> <li>• Low fall risk implement low fall risk interventions per protocol <ul style="list-style-type: none"> <li>- Complete paralysis or completely immobilized</li> </ul> </li> </ul>

#### 4.8.4 Key Component 3: Preventing Falls and Harm from Falling

**Definition:** Falls put you at risk of serious injury. As you get older, physical changes, health conditions, and sometimes the medications used to treat those conditions make falls more likely. In fact, falls are a leading cause of injury among older adults.

**Outcome:** Decrease fall incidents by implementing some methods and precautions.

**Responsibilities:** A fall prevention system should be developed that takes into consideration local circumstances. Consideration needs to be given to the individual roles and resources of each health service organization, and each clinical area within a health service organization, during the implementation process. Facilities may need additional resources such as equipment, personnel, education, and training to ensure patients are appropriately screened, risks are assessed, and suitable risk minimization strategies are implemented.

Activities	Means of achieving
Using a best practice–based tool to screen patients on presentation, during admission, and when clinically indicated for the risk of falls	<p><b>Handoff communication issues:</b></p> <ul style="list-style-type: none"> <li>• Utilize whiteboards to communicate patient fall risks to all staff</li> <li>• Alert staff to which patients are at risk for a fall and effectively translate fall risk information into useful tasks, reports, and prompts</li> <li>• Initiate bedside shift report with patient that includes focus on fall risk concerns</li> </ul> <p><b>Toileting issues:</b></p> <ul style="list-style-type: none"> <li>• Implement hourly rounding with proactive toileting for all patients and track and monitor to ensure success</li> <li>• Implement scheduled toileting for high-risk patients: get patient up for toileting on a regular schedule; track and monitor to ensure success</li> <li>• Schedule medication administration for at least 2 hours prior to “bedtime,” because some medications increase the risk of falls combined with toileting</li> </ul> <p><b>Call light issues:</b></p> <ul style="list-style-type: none"> <li>• Have patients sign an agreement indicating they understand why they are a fall risk and what they can do to ensure their safety (e.g. use a call light)</li> <li>• Educate patient on the use of and indications for using the call light</li> <li>• Educate family on the need for using the call light for assistance at all times, especially when getting into and out of bed</li> <li>• Have protocol in place to address extra precautions needed for patients with dementia or other diseases that affect memory</li> </ul> <p><b>Ensure strong support from all HCPs for preventing falls</b></p>

#### 4.8.5 Key Component 4: Communicating with Patients and Carers

**Definition:** Patients and carers are informed of the risks, prevention strategies, and management of falls.

**Outcome:** Increase the effectiveness of care plans as patients and carers can provide information about factors that are specific to the individual.

**Responsibilities:** Patients and carers are informed of the identified risks from falls and are engaged in the development of a fall prevention plan. Consumer participation in health care is central to high-quality and accountable health services. It also encourages shared responsibility in health care. Consumers can facilitate change in health care practices.

Activities	Means of achieving
Informing patients and carers about the risk of falls and fall prevention strategies	<ul style="list-style-type: none"> <li>• Talk openly with doctor about fall risks and prevention:               <ul style="list-style-type: none"> <li>- All level of HCPs will be included in the process</li> <li>- Tell doctor right away if you have fallen, or if you're afraid you might fall, or if you feel unsteady</li> <li>- Work together and review all medications and discuss any side effects like feeling dizzy or sleepy</li> <li>- See if taking vitamin D supplements for improved bone, muscle, and nerve health is right for you</li> </ul> </li> <li>• Activities that strengthen own legs and help own balance to prevent falls</li> <li>• Have vision checked once a year and update your glasses as needed</li> <li>• Most falls happen at home and can be prevented in the following ways:               <ul style="list-style-type: none"> <li>- Keep floors clutter free</li> <li>- Remove small rugs or tape down or secure them</li> <li>- Add grab bars in the bathroom</li> <li>- Have handrails and lights installed on all staircases</li> <li>- Make sure that home has lots of light</li> </ul> </li> </ul>

## 5 Way Forward

It is mentioned in detail in the table above about the activities to be undertaken to ensure patient safety. Each facilities can implement these activities in phases initiating those activities, which seem achievable and moving onto to others gradually, and progressively covering all the domains by 2022 achieving most if not all of them.

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